

IN THE CLAIMS:

115. (Currently amended) In a method of transmitting an ~~unencrypted~~ message[[5]] from a sender to a destination address through a server displaced from the destination address and of authenticating the message, the steps at the server of:

- 5 receiving the ~~unencrypted~~ message from the sender,  
transmitting the ~~unencrypted~~ message, ~~without any encryption~~, to the destination address,  
receiving at the server an indication from the destination address that the message has been received at the destination address from the server,
- 10 ~~without encrypting the unencrypted address, providing at the server a digital signature of the unencrypted message while retaining the message in addition to the digital signature of the message~~maintaining the message in its original form and additionally providing a digital signature of the message in the original form of the message, and
- 15 transmitting to the sender the ~~unencrypted~~ message in its original form, and the digital signature of the ~~unencrypted~~ message in the original form of the message, for storage by the sender.

116. (Currently amended) In a method as set forth in claim 115, the step at the  
20 server of:

discarding the ~~unencrypted~~ message and the digital signature of the ~~unencrypted~~ message after the transmission of the ~~unencrypted~~ message and the digital signature of

the ~~unencrypted~~ message to the sender and before any authentication of the ~~unencrypted~~ message.

117. (Currently amended) In a method as set forth in claim 116, the steps at the

5 server of:

receiving from the sender a copy of the ~~unencrypted~~ message and the digital signature of the ~~unencrypted~~ message before any authentication of the ~~unencrypted~~ message, but after the transmission of the message to the destination address,

10 generating digital fingerprints of the ~~unencrypted~~ message, and the digital signature of the message, received from the sender ~~of the message~~,

comparing the digital fingerprints, and

authenticating the ~~unencrypted~~ message on the basis of the results of the comparison.

15 118. (Currently amended) In a method as set forth in claim 116, the steps at the server of:

~~without encrypting the unencrypted message~~, providing at the server an attachment including the identity of the sender and the identity and address of the server and the identity and the destination address of a recipient, ~~all as received by the server~~  
20 ~~from the agent destination address,~~

~~generating a digital signature of the attachment without encrypting the unencrypted message while retaining the attachment in addition to the digital signature of~~

~~the attachment~~ maintaining the attachment in the original form and additionally providing a digital signature of the attachment in the original form of the attachment, and

~~without encrypting the unencrypted message, transmitting to the sender the attachment in the original form of the attachment, and the digital signature of the~~

5 attachment in the original form of the attachment, for storage by the sender ~~including the identity of the sender, the identity and address of the server and the identity and destination address of the recipient and transmitting to the sender the~~ attachment and the digital signature of the attachment, ~~all as received by the server from the destination address,~~ at the same time as the transmission of the message, and the digital signature of  
10 the message, to the sender.

119. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

15 receiving an attachment from the destination address ~~without encrypting the unencrypted message,~~

~~without encrypting the unencrypted message, providing at the server a digital signature of the attachment while retaining the attachment in addition to the digital signature of the attachment, and~~ maintaining the attachment in its original form and  
20 additionally providing a digital signature of the attachment in the original form of the attachment, and

~~without encrypting the unencrypted message, transmitting to the sender the attachment in the original form of the attachment, and the digital signature of the attachment in the original form of the attachment, for storage by the sender and the digital signature of the attachment without encrypting the unencrypted message.~~

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120. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

~~without encrypting the unencrypted message, receiving from the sender copies of the unencrypted message and the attachment and the digital signatures of the unencrypted message and the attachment,~~

10

~~without encrypting the unencrypted message, generating digital fingerprints of the unencrypted message and the digital signature of the unencrypted message and digital fingerprints of the attachment and [[of]] the digital signature of the attachment, and~~

comparing the digital fingerprints of the ~~unencrypted~~ message and ~~[[of]]~~ the digital signature of the ~~unencrypted~~ message, and comparing the digital fingerprints of the attachment and the digital signature of the attachment, to authenticate the ~~unencrypted~~ message and the attachment.

15

121. (Currently amended) In a method as set forth in claim 119, the steps at the server of:

20

~~without encrypting the unencrypted message, receiving the unencrypted message, and the digital signature of the unencrypted message, at the server from the sender, and~~

authenticating the ~~unencrypted~~ message at the server on the basis of the ~~unencrypted~~ message[[.]], and the digital signature of the message, received by the server from the sender.

5           145. (Currently amended) A method of transmitting an ~~unencrypted~~ message from a sender to a destination address for a recipient through a server displaced from the destination address and of authenticating the message, including the steps at the server of, receiving the ~~unencrypted~~ message from the sender ~~without encrypting the~~ ~~unencrypted~~ message,

10           transmitting the ~~unencrypted~~ message to the destination address through a path including servers between the server and the destination address, and transmitting to the sender the ~~unencrypted~~ message and the path of transmission of the ~~unencrypted~~ message between the server and the destination address.

15           146. (Currently amended) A method as set forth in claim 145 wherein the server receives from the sender the ~~unencrypted~~ message and the path of transmission of the ~~unencrypted~~ message between the server and the destination address and wherein

20           the server authenticates the ~~unencrypted~~ message on the basis of the ~~unencrypted~~ message and the path of transmission of the ~~unencrypted~~ message between the server and the destination address ~~without encrypting the unencrypted message~~.

147. (Currently amended) A method as set forth in claim 145 wherein  
the server does not retain the ~~unencrypted~~ message and the path of transmission of  
the message between the server and the destination address after it transmits to the sender  
the ~~unencrypted~~ message, ~~to the sender~~ and the path of transmission of the message,  
5 before any authentication of the ~~unencrypted~~ message.

148. (Currently amended) A method as set forth in claim 145 wherein  
the destination address is one of a plurality of destination addresses receiving the  
~~unencrypted~~ message from the server and wherein  
10 the server distinguishes each of the destination addresses in the plurality in the  
transmission of the ~~unencrypted~~ message to the destination addresses in the plurality  
~~without encrypting the unencrypted message.~~

149. (Currently amended) A method as set forth in claim 145 wherein  
15 the path of transmission of the ~~unencrypted~~ message between the server and the  
destination address includes the identity and address of the server and the identity of ~~[[a]]~~  
[[the]] recipient at the destination address.

150. (Currently amended) A method as set forth in claim 146 wherein  
20 the server does not retain the ~~unencrypted~~ message and the path of the  
transmission of the message between the server and the destination address after it  
transmits to the sender the ~~unencrypted~~ message, ~~to the sender~~ and the path of

transmission of the message between the server and the destination address, before any authentication of the ~~unencrypted~~ message and wherein

the destination address is one of a plurality of destination addresses receiving the ~~unencrypted~~ message from the server and wherein

5 the server distinguishes each of the destination addresses in the plurality in the transmission of the ~~unencrypted~~ messages to the destination addresses in the plurality ~~without encrypting the unencrypted message~~, and wherein

the message has an attachment and wherein

the attachment identifies the path of transmission of the ~~unencrypted~~ message[[s]]

10 between the server and the destination address[[es]] ~~without encrypting the unencrypted message~~.

159. (Currently amended) A method of providing a delivery at a server of an ~~unencrypted~~ electronic message from the server to a destination address and of

15 authenticating the electronic message, including the steps at the server of:

receiving at the server the ~~unencrypted~~ electronic message from a sender for transmission by the server to the destination address ~~without encrypting the unencrypted electronic message~~,

transmitting the ~~unencrypted~~ electronic message from the server to the destination  
20 address via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol ~~without encrypting the unencrypted electronic message~~, and

receiving at the server the transmission of the electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted electronic message.~~

5           160. (Currently amended) A method as set forth in claim 159, including the step at the server of:

~~without encrypting the unencrypted electronic message,~~ including, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the identity of the sender, the identity and address of the  
10 server and the destination address.

161. (Currently amended) A method as set forth in claim 159, including the steps at the server of:

providing a transmission of the ~~unencrypted~~ electronic message from the server to  
15 the sender ~~without encrypting the unencrypted electronic message,~~

including, in the transmission of the message from the server to the sender, additionally a digital signature of the ~~unencrypted~~ electronic message ~~without encrypting the unencrypted electronic message while retaining the electronic message in addition to the digital signature of the electronic message.~~

20           162. (Currently amended) A method as set forth in claim 159, including the step at the server of:

~~without encrypting the unencrypted electronic message,~~ recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the ~~unencrypted~~ electronic message from the server to the destination address and the time for the reception of the ~~unencrypted~~ electronic message at the destination address.

163. (Currently amended) A method as set forth in claim 160, including the steps at the server of:

including, in the transmission of the ~~unencrypted~~ electronic message between the server and the sender via the selected one of the SMTP and ESMTP protocols, a digital signature of the electronic message ~~transmission of the unencrypted electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols without encrypting the unencrypted electronic message while retaining the electronic message in addition to the digital signature of the electronic message,~~ and recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the ~~unencrypted~~ electronic message from the server to the destination address and the time for the ~~receipt~~ reception of the electronic message at the destination address.

164. (Currently amended) A method as set forth in claim 159, including the step at the server of:

including, in the transmission of the ~~unencrypted~~ electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the status of the delivery of the ~~unencrypted~~ electronic message at the destination address from the server ~~without encrypting the unencrypted electronic~~  
5 ~~message~~.

165. (Currently amended) A method as set forth in claim 159, including the step at the server of:

receiving at the server a delivery status notification relating to the status of the  
10 delivery of the ~~unencrypted~~ electronic message at the destination address and the delivery of the ~~unencrypted~~ electronic message from the destination address to a recipient ~~without encrypting the unencrypted electronic message~~.

166. (Currently amended) In a method of verifying at a first server a delivery of  
15 an ~~unencrypted~~ electronic message to a destination server for a recipient, the steps at the first server of:

transmitting the ~~unencrypted~~ electronic message from the first server to the destination server via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

20 receiving, at the first server from the destination server, the transmission between the first server and the destination server of the ~~unencrypted~~ electronic message via the

selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted~~  
~~electronic message~~, and

transmitting from the first server to the sender the ~~unencrypted~~ electronic message  
and the transmission between the first server and the destination server via the selected  
5 one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted electronic~~  
~~message protocols~~.

167. (Currently amended) In a method as set forth in claim 166, the step at the  
first server of:

10 ~~without encrypting the unencrypted electronic message~~, transmitting from the first  
server to the sender the ~~unencrypted~~ electronic message at the time of the completion of  
the transmission of the ~~unencrypted~~ electronic message between the first server and the  
destination server via the selected one of the SMTP and ESMTP protocols.

15 168. (Currently amended) In a method as set forth in claim 166, the step at the  
first server of:

~~without encrypting the unencrypted electronic message~~, discarding the electronic  
message at the first server after the transmission of the ~~unencrypted~~ electronic message  
via the selected one of the (SMTP) ~~[[SMTP]]~~ and (ESMTP) ~~[[ESMTP]]~~ protocols by the  
20 first server to the sender.

169. (Currently amended) In a method as set forth in claim 166, the steps at the  
first server of:

~~without encrypting the unencrypted electronic message, maintaining the electronic~~  
~~message at the first server and additionally~~ providing at the first server a digital signature  
of the ~~unencrypted~~ electronic message ~~while retaining the electronic message in addition~~  
~~to the digital signature of the electronic message, and~~

5       ~~without encrypting the unencrypted electronic message,~~ transmitting the digital  
signature of the ~~unencrypted~~ electronic message from the first server to the sender at the  
time of the transmission of the ~~unencrypted~~ electronic message from the first server to the  
sender.

10       170. (Currently amended) In a method as set forth in claim 169, the steps at the  
first server of:

~~without encrypting the unencrypted electronic message~~ transmitting from the first  
server to the sender the ~~unencrypted~~ electronic message after the transmission of the  
~~unencrypted~~ electronic message between the first server and the destination server via the  
15       selected one of the SMTP and ESMTP protocols, and

~~without encrypting the unencrypted electronic message, releasing~~ disposing of the  
~~unencrypted~~ electronic message at the first server after the transmission of the  
~~unencrypted~~ electronic message via the selected one of the SMTP and ESMTP protocols  
by the first server to the sender but before the authentication of the message.

20       171. (Currently amended) In a method as set forth in claim 170, the step at the  
first server of:

~~without encrypting the unencrypted electronic message,~~ transmitting between the first server and the destination server the identity of the sender, the identity and address of the first server and the identity and address of the destination server and the time of the receipt of the ~~unencrypted~~ electronic message by the first server and the time of the transmission to the first server from the destination server of the identity of the sender, the identity and address of the first server and the identity and address of the destination server.

172. (Currently amended) In a method as set forth in claim 166, the step at the first server of:

~~without encrypting the unencrypted electronic message,~~ receiving at the first server from the destination server a delivery status notification indicating the status of the delivery of the ~~unencrypted~~ electronic message from the first server to the destination server and the time of the transmission of the delivery status notification by the destination server to the first server.

173. (Currently amended) In a method of verifying at a first server an ~~unencrypted~~ message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps at the first server of:

~~without encrypting the unencrypted electronic message~~ receiving at the first server from the destination server an attachment including transmissions between the first server and the destination server relating to the ~~unencrypted electronic~~ message from the sender,

the transmissions between the first server and the destination server being provided via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

~~without encrypting the unencrypted electronic message,~~ transmitting from the first

5 server to the sender the ~~unencrypted electronic~~ electronic message and the attachment including the transmissions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol,

~~without encrypting the unencrypted electronic message,~~ transmitting from the

sender to the first server the ~~unencrypted electronic~~ electronic message and the  
10 attachment including the transmissions via the selected one of the SMTP and ESMTP protocols, and

authenticating the message on the basis of the ~~unencrypted electronic~~ electronic message, and the attachment including the transmission via the selected one of the SMTP and ESMTP protocols, received by the first server from the sender.

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174. (Currently amended) In a method as set forth in claim 173, wherein:

the attachment includes transmissions between servers intermediate[[;]] the first server and the destination server.

20 175. (Currently amended) In a method as set forth in claim 173, the step at the first server of:

~~without encrypting the unencrypted electronic message, removing~~ disposing of the  
unencrypted electronic message from the first server when the first server transmits to the  
sender the ~~unencrypted electronic~~ electronic message and the attachment, including the  
transmissions between the first server and the destination server via the selected one of  
5 the SMTP protocol and the ESMTP protocol, before the authentication of the message  
and the attachment.

176. (Currently amended) In a method as set forth in claim 173~~5~~, the steps at the  
first server of:

10 ~~without encrypting the unencrypted electronic message~~ receiving at the first server  
from the destination server the transmission of the identity of the sender, the identity and  
address of the first server and the identity and address of the destination server via the  
protocol selected from the group consisting of the SMTP protocol and the ESMTP  
protocol, and

15 ~~without encrypting the unencrypted electronic message~~ transmitting from the first  
server to the sender the identity of the sender, the identity and address of the first server  
and the identity and address of the destination server at the time of the transmission from  
the first server to the sender of the ~~unencrypted~~ message and the transmission between  
the first server and the destination server via the protocol selected from the group  
20 consisting of the SMTP protocol and the ESMTP protocol, the disposition of the message  
and the attachment occurring before the authentication of the message and the  
attachment.

177. (Currently amended) In a method as set forth in claim 173, the steps at the first server of

~~without encrypting the unencrypted electronic message,~~ providing at the first  
5 server digital signatures of the ~~unencrypted electronic~~ message and ~~[[of]]~~ the  
attachment~~[[,]]~~ including the transmission between the first server and the destination  
server relating to the ~~unencrypted electronic~~ message from the sender, and

~~without encrypting the unencrypted electronic message,~~ transmitting from the first  
server to the sender the ~~unencrypted electronic~~ message and the attachment and the  
10 digital signatures of the ~~unencrypted electronic~~ message and ~~[[of]]~~ the attachment.

178. (Currently amended) In a method as set forth in claim 173, the steps at the first server of:

~~without encrypting the unencrypted electronic message,~~ transmitting from the first  
15 server to the sender the identity of the sender, the identity and address of the first server  
and the identity and address of the destination server at the time that the ~~unencrypted~~  
~~electronic~~ message and the transmissions between the first server and the destination  
server are transmitted from the first server to the sender,

~~without encrypting the unencrypted electronic message,~~ transmitting from the  
20 sender to the first server the information transmitted from the first server to the sender,  
and

authenticating the ~~unencrypted~~ electronic message at the first server on the basis of  
~~the information transmitted from the sender to the first server and representing the~~  
information previously transmitted from the first server to the sender and thereafter  
transmitted from the sender to the first server.

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179. (Currently amended) A method of verifying delivery at a first server of an  
~~encrypted~~ electronic message to a destination server for a recipient, including the steps at  
the first server of:

receiving at the first server the ~~unencrypted~~ electronic message from a message  
10 sender for transmission of the electronic message to the destination server ~~without~~  
~~encrypting the unencrypted electronic message,~~

~~without encrypting the unencrypted electronic message,~~ transmitting the  
~~unencrypted~~ electronic message from the first server to the destination server via a  
protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol,

15 ~~without encrypting the unencrypted electronic message,~~ receiving at the first  
server the transmissions between the first server and the destination server via the  
selected one of the SMTP and ESMTP protocols, and

~~without encrypting the unencrypted electronic message~~ transmitting from the first  
server to the sender the ~~unencrypted~~ electronic message and at least a particular portion  
20 of the transmission between the first server and the destination server via the selected one  
of the SMTP and ESMTP protocols.

180. (Currently amended) A method as set forth in claim 179 wherein  
the ~~unencrypted~~ electronic message and the at least particular portion of the  
transmissions via the selected one of the SMTP and ESMTP protocols to the sender are  
provided by the sender to the first server ~~without encrypting the unencrypted electronic~~  
5 ~~message~~, and wherein

the ~~unencrypted~~electronic message is authenticated by the first server on the basis  
of the ~~unencrypted~~ electronic message and the at least particular portion of the  
transmissions from the sender to the first server.

10 181. (Currently amended) A method as set forth in claim 179 wherein  
the electronic message is ~~retained~~ maintained at the first server and additionally a  
digital signature is provided of the ~~unencrypted~~ electronic message at the first server  
~~without encrypting the unencrypted electronic message while retaining the electronic~~  
~~message in addition to the digital signature of the electronic message~~ and wherein

15 the digital signature is transmitted from the first server to the sender with the  
message and the at least particular portion of the transmission[[s]] between the first  
server and the destination server ~~without encrypting the unencrypted electronic message~~  
via the selected one of the SMTP and ESMTP protocols and wherein

the digital signature is thereafter provided by the sender to the first server with the  
20 ~~unencrypted~~ electronic message and the at least particular portion of the transmission via  
the selected one of the SMTP and ESMTP protocols ~~without encrypting the unencrypted~~  
~~electronic message~~.

182. (Currently amended) A method as set forth in claim 180 wherein  
~~without encrypting the unencrypted electronic message,~~ a digital signature of the  
~~unencrypted~~ electronic message and a digital signature of the electronic transmission  
5 provided via the selected one of the SMTP and ESMTP protocols are produced at the first  
server and are transmitted to the sender with the ~~unencrypted~~ electronic message and the  
electronic transmissions provided via the selected one of the SMTP and ESMTP  
protocols and wherein

the digital signatures and the ~~unencrypted~~ electronic message and the at least  
10 particular portion of the transmission via the selected one of the SMTP and ESMTP  
protocols to the sender are thereafter provided by the sender to the first server ~~without~~  
~~encrypting the unencrypted electronic message~~ and wherein

~~without encrypting the unencrypted electronic message,~~ digital fingerprints are  
produced at the first server from the ~~unencrypted~~ electronic message, and the digital  
15 signature of the ~~unencrypted~~ electronic message, provided by the sender to the first server  
and wherein

the ~~unencrypted~~ electronic message is authenticated at the first server by  
establishing an identity between the digital fingerprints produced at the first server.

183. (Currently amended) A method of verifying at a first server the delivery of  
20 an ~~unencrypted~~ electronic message from the first server to a destination server including  
the steps at the server of:

~~without encrypting the unencrypted electronic message,~~ receiving at the first server the ~~unencrypted~~ electronic message from a message sender for transmission to the destination server,

~~without encrypting the unencrypted electronic message,~~ transmitting the electronic  
5 message from the first server to the destination server,

~~without encrypting the unencrypted electronic message,~~ receiving at the first server ~~[[the]]~~ an electronic transmission between the first server and the destination server via a protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol,

10 ~~without encrypting the unencrypted electronic message,~~ transmitting from the first server to the sender the ~~unencrypted~~ electronic message and ~~an unencrypted~~ ~~[[the]]~~ electronic transmission between the first server and the destination server ~~in~~ via the selected one of the SMTP and ESMTP protocols,

~~without encrypting the unencrypted electronic message,~~ receiving at the first  
15 server from the sender the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

authenticating the electronic message at the first server on the basis of the electronic message received by the first server from the sender and the electronic  
20 transmission~~[[s]]~~ received by the first server from the sender.

187. (Currently amended) A method as set forth in claim 163, including the steps of:

~~without encrypting the unencrypted electronic message,~~ transmitting from the sender to the server the ~~unencrypted~~ electronic information transmitted from the server to the sender, and

authenticating the ~~unencrypted~~ electronic message on the basis of the information transmitted from the sender to the server.

188. (Currently amended) A method as set forth in claim 163, including the steps at the server of:

~~without encrypting the unencrypted electronic message, providing a digital signature of the unencrypted electronic message while retaining~~ maintaining the electronic message ~~in~~ and additionally providing to a digital signature of the electronic message, and maintaining the electronic attachment and additionally providing a digital signature of ~~an unencrypted~~ the electronic attachment including the electronic transmissions between the server and the destination server via the selected one of [[the]] SMTP and ESMTP [[the]] protocols ~~while retaining the electronic attachment in addition to the digital signature of the electronic attachment,~~ and

~~without encrypting the unencrypted electronic message,~~ transmitting the digital signature of the ~~unencrypted~~ electronic message, and the digital signature of the electronic attachment, from the server to the sender, at the same time that the ~~unencrypted~~

electronic message and the ~~unencrypted~~ electronic attachment are transmitted from the server to the sender.

189. (Currently amended) A method as set forth in claim 173, including the steps at the first server of:

~~generating at the first server a digital signature of the unencrypted electronic message and a digital signature of the unencrypted electronic attachment including the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols without encrypting the unencrypted while retaining~~  
10 maintaining the electronic message in and additionally providing to the digital signature of the electronic message and maintaining the electronic attachment and additionally providing the digital signature of the electronic attachment, and

transmitting from the first server to the sender the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment and the digital signatures of the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment ~~without encrypting the unencrypted electronic message.~~

190. (Currently amended) A method as set forth in claim 173, including the steps at the first server of:

~~without encrypting the unencrypted electronic message, maintaining the electronic~~  
20 message and additionally providing a digital signature of the unencrypted electronic message, and maintaining the electronic attachment a digital signature of the unencrypted  
~~electronic attachment including the transmission between the first server and the~~

destination server via the selected one of the SMTP and ESMTP protocols ~~while retaining the electronic message in addition to the~~ and additionally providing a digital signature of the electronic attachment ~~and while retaining the electronic attachment in addition to the digital signature of the electronic attachment, and~~

5       ~~without encrypting the unencrypted electronic message, before any authentication of the unencrypted electronic message, transmitting the digital signatures~~ of the electronic message and of the electronic attachment from the first server to the sender at the same time as the transmission from the first server to the sender of the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment including the transmission via the

10   selected one of the SMTP and ESMTP protocols.

191. (Currently amended) A method as set forth in claim 189, including the steps at the first server of:

~~without encrypting the unencrypted electronic message, transmitting from the~~

15   sender to the first server the ~~unencrypted~~ electronic message and the digital signature of the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment and the digital signature of the ~~unencrypted~~ electronic attachment including the transmission~~[[s]]~~

between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

20       authenticating the message on the basis of the digital signatures<sub>1</sub> and the ~~unencrypted~~ electronic message and the ~~unencrypted~~ electronic attachment<sub>1</sub> transmitted

from the sender to the first server via the selected one of the SMTP and ESMTP protocols.

226. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

providing an electronic attachment transmitted between the second server and the destination server via a selected one of SMTP and ESMTP protocols, and

transmitting the electronic attachment from the second server to the sender.

227. (Currently amended) In a method as set forth in claim 226, the steps at the second server of:

maintaining the electronic attachment in its original state, and additionally providing a digital signature of the electronic attachment, at the second server, and

transmitting the digital signature of the electronic attachment from the second server to the sender at the time of transmitting the electronic attachment from the second server to the sender.

228. (Currently amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender, and

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature ~~received by the second server from the sender of the electronic attachment, received by the second server from the sender.~~

5           229. (Currently amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender,

providing at the second server digital fingerprints of the electronic attachment, and  
10 the digital signature ~~received at the second server from the sender of the electronic attachment, received at the second server from the sender,~~ and

comparing the digital fingerprints to authenticate the electronic attachment.

230. (Currently amended) In a method of authenticating a message provided by  
15 a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

providing an electronic attachment including the identity and address of the sender and the identity and address of the second server and the identity and address of the destination server, and

20 transmitting the electronic attachment from the second server to the sender.

231. (Currently amended) In a method as set forth in claim 230 wherein  
the electronic attachment includes the address and identity of intermediate stations  
receiving the electronic attachment in the transmission of the ~~message~~ electronic  
attachment between the second server and the destination server.

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232. (Currently amended) In a method as set forth in claim 230, the steps at the  
second server of:

maintaining the electronic attachment in its original state, and additionally  
providing a digital signature of the electronic attachment, at the second server ~~while~~  
10 ~~retaining the attachment in addition to the digital signature of the attachment,~~ and  
transmitting the digital signature of the attachment from the second server to the  
sender[[,]] at the time of transmitting the attachment from the second server to the sender.

233. (Currently amended) In a method as set forth in claim 231, the steps at the  
15 second server of:

maintaining the electronic attachment in its original state, and additionally  
providing a digital signature of the attachment, at the second server ~~while retaining the~~  
~~attachment in addition to the digital signature of the attachment,~~ and  
transmitting the digital signature of the attachment from the second server to the  
20 sender[[,]] at the time of transmitting the attachment from the second server to the sender.

234. (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving the attachment<sub>1</sub> and the digital signature of the attachment, at the second server from the sender, and

5 authenticating the attachment at the second server on the basis of the attachment<sub>1</sub> and the digital signature of the attachment, received by the second server from the sender of the attachment.

235. (Currently amended) In a method as set forth in claim 233, the step[[s]] at  
10 the second server of:

authenticating the attachment at the second server on the basis of the attachment and the digital signature of the attachment, received by the second server from the sender of the attachment.

15 236. (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving at the second server the attachment<sub>1</sub> and the digital signature ~~at the second server~~ of the attachment, ~~received by the second server~~ from the sender,

providing at the second server digital fingerprints of the attachment<sub>1</sub> and the digital  
20 signature of the attachment, received at the second server from the sender of the attachment, and

comparing the digital fingerprints at the second server to authenticate the attachment.

237. (Currently amended) In a method as set forth in claim 233, the steps at the  
5 second server of:

receiving the attachment, and the digital signature of the attachment, at the second server from the sender,

providing at the second server digital fingerprints of the attachment, and ~~[[of]]~~ the digital signature of the attachment, received at the second server from the sender ~~of the~~

10 attachment, and

comparing the digital fingerprints to authenticate the attachment.

238. (Currently amended) In a method of ~~verifying~~ authenticating at a server ~~[[a]]~~ an electronic message and the delivery of ~~[[an]]~~ the electronic message to a

15 destination address, the steps at the server of:

transmitting the electronic message between the server and the destination address,

receiving at the server the path of transmission of the message between the server and the destination address, the path including servers between the server and the destination address, and

20 transmitting to the sender the electronic message and the path of transmission of the electronic message between the server and the destination ~~[[øf]]~~ address.

239. (Currently amended) In a method as set forth in claim 238 wherein

the server does not retain the message or the path of transmission of the message between the server and the destination address after the server transmits to the sender the message and the path of transmission of the message between the server and the  
5 destination address.

240. (Currently amended) In a method as set forth in claim 238 wherein

the server receives from the sender the message and the path of transmission of the message between the server and the destination address and wherein

10 the server authenticates the message on the basis of the receipt by the server from the sender of the message[[;]] and the path of transmission of the message between the server and the destination address, ~~received by the server from the sender.~~

241. (Currently amended) In a method as set forth in claim 240 wherein

15 the server maintains the message in its original form and additionally provides a digital signature of the message ~~while retaining the message in addition to the digital signature of the message~~ and transmits the digital signature with the message to the sender and wherein

the server receives from the sender the message and the digital signature of the  
20 message and wherein

the server provides digital fingerprints of the message and the digital signature of the message and compares the digital fingerprints to authenticate the message.

242. (Currently amended) In a method as set forth in claim 240~~239~~ wherein

the server maintains the path of transmission of the message in its original form  
and additionally provides a digital signature of the path of transmission of the message

5 between the server and the destination address ~~while retaining the path of transmission of~~  
~~the message in addition to the digital signature of the path of transmission~~ and transmits  
the digital signature to the sender with the path of transmission and wherein

the server receives from the sender the path of transmission and the digital  
signature of the path of transmission and wherein

10 the server provides digital fingerprints of the path of transmission and the digital  
signature of the path of the transmission and compares the digital fingerprints to  
authenticate the message.